

PALS Chapter 5 (p.139: 31-40)

(Total: 32)

31. Arun's savings  5 units

Majid's savings  3 units

Arun's savings is $\frac{5}{3}$ of Majid's saving

32. Cars  4 units

Vans  5 units

Ratio of number of vans to the number of cars = $5:4$

33. John  2 units

Peter  3 units

} total 5 units

The ratio of number of sweets John ate to the total number of sweets they ate = $2:5$

34. rope  3 units

stick  1 unit

the length of rope is 3 times of the length of the stick.

(the length of the stick is $\frac{1}{3}$ times of the length the rope). @1

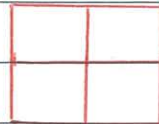
apple	cost
5	\$1.85
15	\$?

The cost of 15 apples =

$$\$1.85 \times \frac{15}{5} = 3$$

$$\begin{array}{r} 1.85 \\ \times 3 \\ \hline 5.55 \end{array}$$

$$= \$5.55$$

36. rice  2

chicken  5

} Total 7 units
350 g

She used $\frac{3}{7}$ of the total mass chicken

$$= \frac{3}{7} \times 350g = 150g$$

or Chicken used = $350 \times \frac{5}{7} = 250g$

rice used = $350 \times \frac{2}{7} = 100g$

i. She used $(250 - 100g) = 150g$ more chicken than rice.

@5	37.	Sam has $96 \times \frac{8}{16} = 48$ marbles		Sam	Tanfik	Rita	Total
		Tanfik has $96 \times \frac{5}{16} = 30$ marbles	Old ratio	8	5	3	16
		Rita has $96 \times \frac{3}{16} = 18$ marbles		48	30	18	96
			New ratio	48-8	30-8	18+8	
		The new ratio will be		40	22	34	96
		$48-8 = 30-8 = 18+8$	Simplify	20	11	17	
		$= 40 = 22 = 34$	New ratio				
		$= 20 = 11 = 17$					

@3	38.	Mangoes : apple = pears	Mangoes : apple = pears
		3 = 4	or 3 : 4
		2 = 5	$2 \times (2 = 5) \times 2$
		6 = 8 = 20	4 = 10
		3 = 4 = 10	\therefore Mangoes : apple : pears
			3 : 4 = 10

The number of pears is $\frac{10}{17}$ of the total

39.	Motorcycle has 2 wheels		Car	Motor	Total
	Car has 4 wheels	No	x	x+3	?
@5		wheel	4x	2(x+3)	54
				2x+6	
	From the given data as above:				
	$4x + 2x + 6 = 54$		(when x is the number of car)		
	$6x + 6 = 54$				
	$6x = 48$		a) There are $8+3 = 11$ motorcycles		
	$x = 8$		b) There are 8 cars.		

39. Method 2

If there is no extra motor cycle, the number of wheel will be $54 - 2 \times 3$
 then, There will be same number of car and motor, i.e. $48 \div (2+4) = 8$

\therefore There are 8 cars and $8+3 = 11$ motor cycle.

↑ total number of wheel for car + motorcycle



20¢	<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr></table>							$3x$	} 10 units (Total)							
50¢	<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>															$7x$

Case 2 (After adding 20 coins to each) Method 2.

 $2x + 20$

7

7-3

$$\Rightarrow 4$$

50 d

 $7x + 20$

11

11-7

$\Rightarrow 4$

Let there are 30 200 count at first -
from the given data and above

$$\frac{3x+20}{7x+20} = \frac{7}{11}$$

$$(3x+20)11 = 7(7x+20)$$

$$33x + 220 = 49x + 140$$

$$49x - 33x = 220 - 140$$

$$16x = 80$$

$$x = 5$$

There are $3x = 3 \times 5 = 15$ ~~200~~ at first.

Method 2

The number of unit difference after 20 coins added is 4

∴ 4 unit \rightarrow 20 coins

1 unit \rightarrow 5 coins

i. They use $5 \times 3 = 15$ 20¢ coins at first.

[illegible]